

CLAIMS

1. Measuring instrument, preferably for use in connection with hip prosthesis surgery, **characterised in that** the measuring instrument includes:

- 5 - an adapter including a measuring head and a connector, where the measuring head is provided with a largely hemispherical surface in which there is a central through-going bore, where the measuring head is divided into at least two separate sections, where the connector is hollow and slotted at one end in axial direction of the measuring head into a number of legs, 10 the number of legs corresponding to the number of the at least two separate sections of the measuring head, where the legs of the connector are each connected to one of the at least two sections of the measuring head on the rear side of the hemisphere, where a securing arrangement is provided at the opposite end of the connector relative to the connection to the 15 measuring head;
- a measuring unit including a actuating rod, where a main part having preferably conical shape that can interact displaceably axially with the central bore of the adapter and thereby change the diameter of the measuring head of the adapter, a mounting ring where means for engaging the 20 securing arrangement of the adapter are provided, where the mounting ring is connected with a handle member, where in connection with the handle member there is provided means for axial displacement of the actuation rod and registration of the relative displacement of the actuation rod relative to the measuring head;
- 25 - a depth gauge including a first part, which is preferably a smooth rod, and a second part with stop and measurement indications, where the depth gauge is provided for interacting with a through-going opening in the axial direction of the measuring instrument.

30 2. Measuring instrument according to claim 1, **characterised in that** spherical surface of the measuring head of the adapter is provided with at least two different surfaces, a rough surface at the lower part of the spherical surface and a smooth surface on top of

the spherical surface.

3. Measuring instrument according to any of claims 1 or 2, **characterised in that** the securing arrangement of the adapter are recesses for a bayonet socket.

5 4. Measuring instrument according to any of claims 1 - 3, **characterised in that** adapter is made of a hard yet flexible material, which can be one or more of the following: a metal alloy, a plastic material, e.g. a plastic composite, and/or ceramic material.

10 5. Measuring instrument according to claim 1, **characterised in that** the preferably conical main part of the actuation rod interacts with a face and/or edge of the central through-going bore inside the measuring head of the adapter, where in neutral position of the actuation rod the at least two separate sections of the measuring head are largely
15 gathered, and by axial displacing of the actuation rod, the at least two separate sections of the measuring head will be pressed away from each other, and the diameter of the measuring head will expand with up to 4 mm.

20 6. Measuring instrument according to claim 1, **characterised in that** mounting ring of the measuring unit, where means for engaging the securing arrangement of the adapter have been provided, is designed as pins for a bayonet socket.

7. Measuring instrument according to claim 1, **characterised in that** means for axial displacement of the actuation rod is a millimetre screw device.

25 8. Measuring instrument according to claim 7, **characterised in that** the millimetre screw device includes a spring in connection with an adjusting member and a swivel ring with one or more measuring indications.

30 9. Measuring instrument according to claim 1, **characterised in that** means for axial displacement of the actuation rod is one or more of the following: hydraulics, pneumatics and/or electricity driving a motor or unit interacting with the actuation rod.

10. Measuring instrument according to claim 1, **characterised in that** registration of the relative displacement of the actuation rod relative to the measuring head is effected by reading one or more measuring indications on the measuring handle.

5

11. Measuring instrument according to claim 1, **characterised in that** the measuring instrument is connected to a computer for controlling and/or registering the relative displacement of the actuation rod in relation to the measuring head of the relative displacement of the actuation rod.

10

12. Adapter for use in a measuring instrument according to any preceding claim, **characterised in that** the adapter is exchangeably connected with the measuring unit of the measuring instrument.

15

13. Adapter according to claim 10, **characterised in that** the adapter is provided in a series with different diameters of the measuring head, where the diameter of the measuring head in a neutral position can vary from 45 to 85 mm, preferably between 50 mm and 70 mm.

20